

In the Claims:

Please amend Claims 1, 6 and 8; cancel Claims 3-5, 7, 11-40; and add Claims 41-55, all as shown below. Applicant reserves the right to prosecute any originally presented or canceled claims in a continuing or future application.

1. (Currently Amended) A system for software application development and modeling, capable of being integrated with a software application design modeling tool, comprising:
an expert system for ~~developing~~ automatically
reading a software application design UML model conforming to the software application design model tool,
reading a one or plurality of target application server design patterns,
enhancing the software application design[[s]] UML model to conform to the target application server design patterns, and
generating code implementations for the target application server defined by the enhanced software application design UML model; and,
an interface to a software application design modeling tool for modeling said software application design[[s]] UML model, wherein said modeling includes said reading of software application design UML model, said enhancing of software application design UML model, and said generating code implementations.
2. (Original) The system of claim 1 wherein said expert system further includes means for specifying application design requirements.
- 3-5. (Canceled).
6. (Currently Amended) The system of claim ~~[[5]]~~ 1 wherein said expert system further includes means for ~~testing said software application implementation~~ generation of an application test client to verify the integrity of the generated and modified code.

7. (Canceled).
8. (Currently Amended) The system of claim 1 wherein said expert system is provided as a plugin to the ~~system for software application development and modeling~~ software application design modeling tool.
9. (Original) The system of claim 1 further comprising:
a database interface to allow retrieval of application design data from a relational database;
and,
an interface repository for storing interface definition language files.
10. (Original) The system of claim 1 further comprising:
means for reverse engineering an interface definition language file to extract application design information.
- 11-40. (Canceled).
41. (New) The system according to claim 1 wherein said expert system further comprises means for generation of support files for the generated and modified code.
42. (New) The system of claim 1 wherein said expert system is provided as a add-in to the software application design modeling tool.
43. (New) The system according to claim 1 wherein said expert system further comprises means for scanning said software application design UML model for correctness and completeness prior to generation of implementation code.
44. (New) A method for software application development and modeling, capable of being

integrated with a software application design modeling tool, comprising the steps of:

providing an expert system for automatically

reading a software application design UML model conforming to the software application design model tool;

enhancing the software application design UML model to conform to target application server design patterns; and

generating code implementations for the target application server defined by the enhanced software application design UML model; and,

providing an interface to a software application design modeling tool for modeling said software application design UML model, wherein said modeling includes said reading of software application design UML model, said enhancing of software application design UML model, and said generating code implementations.

45. (New) The method according to claim 44 wherein said expert system further includes means for specifying application design requirements.

46. (New) The method according to claim 44 wherein said expert system further includes means for generation of an application test client to verify the integrity of the generated and modified code.

47. (New) The method according to claim 44 wherein said expert system is provided as a plugin to the software application design modeling tool.

48. (New) The method according to claim 44 further comprising:

providing a database interface to allow retrieval of application design data from a relational database; and,

providing an interface repository for storing interface definition language files.

49. (New) The method according to claim 44 further comprising:
providing means for reverse engineering an interface definition language file to extract application design information.
50. (New) The method according to claim 44 wherein said expert system further comprises means for generation of support files for the generated and modified code.
51. (New) The method according to claim 44 wherein said expert system is provided as a add-in to the software application design modeling tool.
52. (New) The method according to claim 1 wherein said expert system further comprises means for scanning said software application design model for correctness and completeness prior to generation of implementation code.
53. (New) A method of iterative software application design process using a software application design modeling tool comprising the steps of:
generating UML diagrams from a requirements specification with provided use cases, wherein said UML diagrams contain limited information for planned software application;
analyzing said UML diagrams and developing business objects for said UML diagrams;
extending said UML diagrams with additional information and adding infrastructure objects to said business objects;
generating code based on the extended UML diagrams, business objects and infrastructure objects; and,
feeding back the additional information in said extending step to said analysis step for developing additional business objects, until the desired code is generated in the generating step.
54. (New) A system for iterative software application design process using a software application design modeling tool comprising:

means for generating UML diagrams from a requirements specification with provided use cases, wherein said UML diagrams contain limited information for planned software application;

means for analysis of said UML diagrams and developing business objects for said UML diagrams;

means for extending said UML diagrams with additional information and adding infrastructure objects to said business objects;

means for generating code based on the extended UML diagrams, business objects and infrastructure objects ; and

means for feeding back the additional information in said extending step to said analysis step for developing additional business objects, until the desired code is generated in the generating step.

55. (New) An expert system for software application development and modeling, comprising:

means for reading a software application design model conforming to the software application design model tool;

means for automatically enhancing the software application design model to conform to target application server design patterns; and

means for automatically generating code implementations for the target application server defined by the enhanced software application design model;